Currents On Demand - v3.0

Domain Portfolio: Conditions | Domain: Current Conditions | Usage Classification: Standard

Geography: Global **Attribution Required:** No **Attribution Requirements:** N/A

Overview

The Weather Current Conditions are generated on demand from The Weather Company (TWC) Currents On Demand (CoD) system. CoD is a system that, at request time, assimilates a variety of meteorological inputs to derive a current condition value precise to the requested location on the Earth's surface. The meteorological inputs include physical surface observations, radar, satellite, lightning and short-term forecast models. The CoD system spatially and temporally blends each input appropriately at request-time, producing a result that improves upon any individual input used on its own.

The CoD data feed returns a similar set of data elements as traditional site-based observations. The API provides information on temperature, precipitation, wind, barometric pressure, visibility, ultraviolet (UV) radiation, and other related weather observations elements as well as date/time, weather icon codes and phrases. The CoD system is gridded across the globe at a 4KM geocode resolution.

Note: All wind values are calculated based on wind status 10 meters above ground.

HTTP Headers and Data Lifetime - Caching and Expiration

For details on appropriate header values as well as caching and expiration definitions, please see **The Weather Company Data | API Common Usage Guide**.

URL Construction

Atomic API URL Examples:	**Aggregate Product Name (requires v3 Aggregate Common Parameter API)**	v3-wx-observations-current
Request by Geocode: Required Parameters: geocode, units, language, format, apiKey		
https://api.weather.com/v3/wx/observations/current?**geocode=40.58,-111.66&units=e&language=en-US&format=json&apiKey=<yourApiKey>**		
Request by IATA Code: Required Parameters: iataCode, units, language, format, apiKey		
https://api.weather.com/v3/wx/observations/current?**iataCode=DEN&units=e&language=en-US&format=json&apiKey=<yourApiKey>**		
Request by ICAO Code: Required Parameters: icaoCode, units, language, format, apiKey		
https://api.weather.com/v3/wx/observations/current?**icaoCode=KDEN&units=e&language=en-US&format=json&apiKey=<yourApiKey>**		
Request by Place ID: Required Parameters: placeid, units, language, format, apiKey		
https://api.weather.com/v3/wx/observations/current?**placeid=327145917e06d09373dd2760425a88622a62d248fd97550eb4883737d8d1173b&units=e&language=en-US&format=json&apiKey=<yourApiKey>**		
Request by Postal Key: Required Parameters: postalKey, units, language, format, apiKey		
https://api.weather.com/v3/wx/observations/current?**postalKey=81657:US&units=e&language=en-US&format=json&apiKey=<yourApiKey>**		

Data Elements & Definitions

Note: Field names are sorted alphabetically in the table below for presentation purposes. The table below does not represent the sort order of the API response.

Reference: **The Weather Company Data | API Common Usage Guide** - Includes URL Path Components, Error Status Codes, Units of Measure, Postal Code Support, Language Codes

Field Name	Description	Type	Sample	Nulls Allowed	Translated	Display
cloudCeiling	Base of lowest Mostly Cloudy or Cloudy layer. Expressed in feet when units=e or h, and meters when units=m or s. **NOTE:** This field can be NULL for any geographic location depending on weather conditions. NULL indicates the ceiling is unlimited (clear skies).	integer	800	Y	N	Display as provided with the correct unit of measure (feet or meters).
cloudCoverPhrase	Descriptive sky cover - based on percentage of cloud cover. Range - Clear: coverage < 0.09375; Partly Cloudy: coverage < .59375; Mostly Cloudy: coverage < .75; Cloudy: coverage >= .75	string	Partly Cloudy	N	Y	Display as provided.
dayOfWeek	Day of week Range - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	string	Thursday	N	Y	Display as processed by your system.
dayOrNight	Daytime or nighttime of the local apparent time of the location Range - D = Day, N = Night, X = Missing (for extreme northern and southern hemisphere)	string	D	N	N	Do not display.
expirationTimeUtc	Expiration time in UNIX in UNIX epoch value. This expiration time indicates the data within the response will be outdated.	epoch	1369252800	N	N	Do not display.
iconCode	This number is the key to the weather icon lookup. The data field shows the icon number that is matched to represent the observed weather conditions. Icon Code list located here. Range - 0 to 47	integer	30	N	N	Do not display.
iconCodeExtend	A four digit code representing the full set of sensible weather icons. These codes are companions to iconCode with more specificity.	integer	3200	N	N	Do not display.
obsQualifierCode	The observation qualifier. It provides a qualitative description of current conditions, comparing the observation to climate averages, records, precip reports, severe weather warnings, etc **NOTE:** Obs Qualifier fields will be null until further notice. Range - “OQ” + 4-digit integer	string	OQ0031	Y	N	Do not display.
obsQualifierSeverity	An objective index or enumeration of the severity or significance of the observation qualifier. **NOTE:** This Obs qualifier field is unit of measure independent when populated. However, Obs Qualifier fields will be null until further notice. Range - 1 (low) through 6 (high)	integer	3	Y	N	Display as provided.
precip1Hour	Rolling hour liquid precip amount. The amounts presented are a rolling time through the request time (now). Units - Expressed in inches when units=e, expressed in millimeters when units=m, s, or h.	decimal	0	Y	N	Display as provided with the correct unit of measure (inches or millimeters). Recommendation: Accompany display with “estimate” or similar phrasing as accumulation measurements for specific points may not exactly match official or unofficial reported measurements.
precip6Hour	Rolling six hour liquid precip amount. The amounts presented are a rolling time through the request time (now). Units - Expressed in inches when units=e, expressed in millimeters when units=m, s, or h.	decimal	0	Y	N	Display as provided with the correct unit of measure (inches or millimeters). Recommendation: Accompany display with “estimate” or similar phrasing as accumulation measurements for specific points may not exactly match official or unofficial reported measurements.

precip24Hour	Rolling twenty-four hour liquid precip amount. The amounts presented are a rolling time through the request time (now). Units - Expressed in inches when units=e, expressed in millimeters when units=m, s, or h. **Note:** Arrival of new, refined data inputs may cause output values to change throughout a given day	decimal	0	Y	N	Display as provided with the correct unit of measure (inches or millimeters). Recommendation: Accompany display with “estimate” or similar phrasing as accumulation measurements for specific points may not exactly match official or unofficial reported measurements.
pressureAltimeter	Barometric pressure is the pressure exerted by the atmosphere at the Earth’s surface due to the weight of the air. Altitude can be determined based on the measurement of barometric pressure. The lower the pressure, the greater the altitude. Units - Expressed in inches of mercury when units=e, expressed in millibars when units=m, s, or h. Range - Inches of mercury precise to hundredths; Millibars precise to tenths.	decimal	30.18	N	N	Display the value using up to two decimals and always use the unit of measure millibars or its abbreviation “mb.” The Barometric Pressure should be labeled using one of the following: ● Pressure ● Atmospheric Pressure ● Surface Pressure ● Barometric Pressure
pressureChange	Change in pressure in the last three hours. Units - Expressed in inches of mercury for units=e, expressed in millibars when units=m, s, or h.	decimal	-0.03	N	N	Display as provided.
pressureMeanSeaLevel	Mean sea level pressure in millibars. In other words, the average barometric pressure at sea level. Range - Millibars precise to 1/10th mb	decimal	1022.4	N	N	Display as provided.
pressureTendencyCode	Code for pressureTendencyTrend. Range - 0 = steady, 1 = rising, 2 = falling, 3 = rapidly rising, 4 = rapidly falling	integer	0	N	N	Do not display.
pressureTendencyTrend	Descriptive text of pressure tendency over the past three hours. Indicates whether pressure is steady, rising, or falling. Range - Steady, Rising, Falling, Rapidly Rising, Rapidly Falling	string	Steady	N	Y	Display as provided.
relativeHumidity	The relative humidity of the air, which is defined as the ratio of the amount of water vapor in the air to the amount of vapor required to bring the air to saturation at a constant temperature. Relative humidity is always expressed as a percentage. Range - 0 to 100	integer	55	N	N	Display with the percent sign “%” after the provided value.
snow1Hour	One hour snowfall amount. The amounts presented are a rolling time through the request time (now). Units - Expressed in inches when units=e, expressed in centimeters when units=m, s, or h.	decimal	0	Y	N	Display as provided with the correct unit of measure (inches or centimeters). Recommendation: Accompany display with “estimate” or similar phrasing as accumulation measurements for specific points may not exactly match official or unofficial reported measurements.
snow6Hour	Six hour snowfall amount. The amounts presented are a rolling time through the request time (now). Units - Expressed in inches when units=e, expressed in centimeters when units=m, s, or h.	decimal	0	Y	N	Display as provided with the correct unit of measure (inches or centimeters). Recommendation: Accompany display with “estimate” or similar phrasing as accumulation measurements for specific points may not exactly match official or unofficial reported measurements.
snow24Hour	Twenty four hour snowfall amount. The amounts presented are a rolling time through the request time (now). Units - Expressed in inches when units=e, expressed in centimeters when units=m, s, or h.	decimal	0	Y	N	Display as provided with the correct unit of measure (inches or centimeters). Recommendation: Accompany display with “estimate” or similar phrasing as accumulation measurements for specific points may not exactly match official or unofficial reported measurements.

sunriseTimeLocal	This field contains the local time of sunrise. It reflects any local daylight savings conventions. **NOTE:** For a few Arctic and Antarctic regions, the Sunrise and Sunset data values will be null as Sunrise and Sunset do not occur at these locations. Range - ISO 8601 - YYYY-MM-DDTHH:MM:SS-NNNN; NNNN=GMT offset	ISO	2014-08-20T10:47:59-0500	Y	N	Display as provided.
sunriseTimeUtc	Sunrise time in UNIX epoch value.	epoch	1369252800	Y	N	Do not display.
sunsetTimeLocal	This field contains the local time of the sunset. It reflects any local daylight savings conventions. **NOTE:** For a few Arctic and Antarctic regions, the Sunrise and Sunset data values will be null as Sunrise and Sunset do not occur at these locations. Range - ISO 8601 - YYYY-MM-DDTHH:MM:SS-NNNN; NNNN=GMT offset	ISO	2014-08-20T10:47:59-0500	Y	N	Display as provided.
sunsetTimeUtc	Sunset time in UNIX epoch value.	epoch	1369252800	Y	N	Do not display.
temperature	Temperature in defined unit of measure. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h. Range - -140 to 140	integer	74	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureChange24Hour	Change in temperature compared to the report 24 hours ago. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h.	integer	-26	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureDewPoint	The temperature which air must be cooled at constant pressure to reach saturation. The Dew Point is also an indirect measure of the humidity of the air. The Dew Point will never exceed the Temperature. When the Dewpoint and Temperature are equal, clouds or fog will typically form. The closer the values of Temperature and Dew Point, the higher the relative humidity. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h. Range - -80 to 100 (°F) or -62 to 37 (°C)	integer	60	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureFeelsLike	An apparent temperature. It represents what the air temperature “feels like” on exposed human skin due to the combined effect of the wind chill or heat index. When the temperature is 65°F or higher, the Feels Like value represents the computed Heat Index. When the temperature is below 65°F, the Feels Like value represents the computed Wind Chill. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h. Range - -140 to 140	integer	101	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureHeatIndex	An apparent temperature. It represents what the air temperature “feels like” on exposed human skin due to the combined effect of warm temperatures and high humidity. Below 65°F, it is set = to the temperature. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h.	integer	82	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureMax24Hour	The maximum temperature in the last 24 hours. The 24 hour period is in reference to the request time (now). Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h.	integer	73	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureMaxSince7Am	The maximum temperature since 7 A.M. local time. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h.	integer	72	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
temperatureMin24Hour	The minimum temperature in the last 24 hours. The 24 hour period is in reference to the request time (now). Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h.	integer	65	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.

temperatureWindChill	An apparent temperature. It represents what the air temperature “feels like” on exposed human skin due to the combined effect of the cold temperatures and wind speed. Above 65°F, it is set = to the temperature. Units - Expressed in fahrenheit when units=e, expressed in celsius when units=m, s, or h.	integer	-34	N	N	Display as provided in degrees Fahrenheit or degrees Celsius based on the Unit of Measure in the API request. Always display the unit of temperature (°F or °C) with the value.
uvDescription	The UV Index Description which complements the uvIndex value by providing an associated level of risk of skin damage due to exposure. Range - Not Available, No Report, Low, Moderate, High, Very High, Extreme	string	High	N	Y	Display as provided.
uvIndex	TWC’s proprietary UV index. The UV Index provides indices of the intensity of the solar radiation level and risk of skin damage due to exposure. Range - -2=Not Available, -1=No Report, 0-2=Low, 3-5=Moderate, 6-7=High, 8-10= Very High, 11-16=Extreme	integer	6	N	N	Display as provided.
validTimeLocal	Time observation is valid in local. Range - ISO 8601 - YYYY-MM-DDTHH:MM:SS-NNNN; NNNN=GMT offset	ISO	2014-08-20T10:47:59-0500	N	N	Display as sorted. Sort by the observation date/time (oldest to newest, newest to oldest) and convert to the Range appropriate for your application Examples: ● US Range: MM/DD/YYYY HH:MM:SS ● US Range: MM/DD/YYYY ● European Range: DD/MM/YYYY ● Asian Range: YYYY/MM/DD
validTimeUtc	Time observation is valid in UNIX epoch value.	epoch	1369252800	N	N	Display as sorted. Sort by the observation date/time (oldest to newest, newest to oldest) and convert to the Range appropriate for your application Examples: ● US Range: MM/DD/YYYY HH:MM:SS ● US Range: MM/DD/YYYY ● European Range: DD/MM/YYYY ● Asian Range: YYYY/MM/DD
visibility	The horizontal visibility at the observation point. Visibilities can be reported as fractional values particularly when visibility is less than 2 miles. Visibilities greater than 10 statute miles(16.1 kilometers) which are considered “unlimited” are reported as “999” in your feed. You can also find visibility values that equal zero. This occurrence is not wrong. Dense fogs and heavy snows can produce values near zero. Fog, smoke, heavy rain and other weather phenomena can reduce visibility to near zero miles or kilometers. Units - Expressed in miles when units=e, expressed in kilometer when units=m, s, or h. Range - 0 to 999 or null; For greater than 1 = no decimal. For less than 1 = 2 (Metric) & 2 (Imperial) decimal places.	decimal	10.2	N	N	Display as provided.
windDirection	The magnetic wind direction from which the wind blows expressed in degrees. The magnetic direction varies from 0 to 359 degrees, where 0° indicates the North, 90° the East, 180° the South, 270° the West, and so forth. Range - 0<=wind_dire_deg<=350, in 10 degree intervals	integer	60	N	N	Wind Direction should always be displayed along with the Wind Speed, including Wind Gusts if present. Cardinal Wind Direction is recommended to be used unless your audience (usually pilots, military, sailing enthusiasts, etc.) are familiar with and understand Magnetic Wind Direction. Do not use both the Cardinal Wind Direction and the Magnetic Wind Direction. We recommend you use the full spelling of the wind direction value (North, South, Southeast, etc.).
windDirectionCardinal	This field contains the cardinal direction from which the wind blows in an abbreviated form.	string	ENE	N	Y	Wind Direction should always be displayed along

	Wind directions are always expressed as “from whence the wind blows” meaning that a North wind blows from North to South. If you face North in a North wind, the wind is at your face. Face southward and the North wind is at your back. Range - N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, CALM					with the Wind Speed, including Wind Gusts if present. Cardinal Wind Direction is recommended to be used unless your audience (usually pilots, military, sailing enthusiasts, etc.) are familiar with and understand Magnetic Wind Direction. Do not use both the Cardinal Wind Direction and the Magnetic Wind Direction. We recommend you use the full spelling of the wind direction value (North, South, Southeast, etc.).
windGust	This data field contains information about sudden and temporary variations of the average Wind Speed. The report always shows the maximum wind gust speed recorded during the observation period. It is a required display field if Wind Speed is shown. The speed of the gust can be expressed in miles per hour or kilometers per hour. Units - Expressed in miles per hour when units=e or h, expressed in kilometers per hour when units=m, expressed in meters per second when units=s.	integer	10	Y	N	Display the Wind Speed with its Wind Direction. Use the value as it appears in the data feed (numeric value) and always display its unit of measure, either the fully spelled version or its abbreviation. Examples: ● Wind: from the Southeast at 5 miles per hour, gusting to 10 miles per hour. ● Wind: from the West at 8 km/h, gusting to 16 km/h.
windSpeed	The wind is treated as a vector; hence, winds must have direction and magnitude (speed). The wind information reported in the current conditions corresponds to a 10-minute average called the sustained wind speed. Sudden or brief variations in the wind speed are known as “wind gusts” and are reported in a separate data field. Wind directions are always expressed as "from whence the wind blows" meaning that a North wind blows from North to South. If you face North in a North wind the wind is at your face. Face southward and the North wind is at your back. Units - Expressed in miles per hour when units=e or h, expressed in kilometers per hour when units=m, expressed in meters per second when units=s.	integer	5	N	N	Display the Wind Speed with its Wind Direction. Use the value as it appears in the data feed (numeric value) and always display its unit of measure, either the fully spelled version or its abbreviation. Examples: ● Wind: from the Southeast at 5 miles per hour. ● Wind: from the West at 8 km/h.
wxPhraseLong	A text description of observed weather conditions accompanying the iconCode field. Range - 32 character phrase (Character limit applies to English phrases only. For other languages this phrase may exceed 32 characters)	string	Rain/Freezing Rain/Windy	N	Y	Display as provided.
wxPhraseMedium	A text description of observed weather conditions accompanying the iconCode field. **NOTE:** This field will be NULL for all languages other than US English (en_US). Range - 22 character phrase	string	Rain/Frz Rain/Wind	Y	N	Display as provided.
wxPhraseShort	A text description of observed weather conditions accompanying the iconCode field. **NOTE:** This field will be NULL for all languages other than US English (en_US). Range - 12 character phrase	string	Frz Rain	Y	N	Display as provided.

JSON Sample


```
// Response Collapsed for Presentation Purposes
[
  {
        “cloudCeiling”: 800,
        "cloudCoverPhrase": "Partly Cloudy",
        "dayOfWeek": "Monday",
        "dayOrNight": "D",
        "expirationTimeUtc": 1544455181,
        "iconCode": 26,
        "iconCodeExtend": 2600,
        "obsQualifierCode": null,
        "obsQualifierSeverity": null,
        "precip1Hour": 0,
        "precip6Hour": 0,
        "precip24Hour": 0.05,
        "pressureAltimeter": 30.14,
        "pressureChange": 0.05,
        "pressureMeanSeaLevel": 1018.6,
        "pressureTendencyCode": 1,
        "pressureTendencyTrend": "Rising",
        "relativeHumidity": 95,
        "snow1Hour": 0,
        "snow6Hour": 0,
        "snow24Hour": 0,
        "sunriseTimeLocal": "2018-12-10T07:34:27-0500",
        "sunriseTimeUtc": 1544445267,
        "sunsetTimeLocal": "2018-12-10T17:27:59-0500",
        "sunsetTimeUtc": 1544480879,
        "temperature": 38,
        "temperatureChange24Hour": -2,
        "temperatureDewPoint": 37,
        "temperatureFeelsLike": 38,
        "temperatureHeatIndex": 38,
        "temperatureMax24Hour": 42,
        "temperatureMaxSince7Am": 38,
        "temperatureMin24Hour": 36,
        "temperatureWindChill": 38,
        "uvDescription": "Low",
        "uvIndex": 1,
        "validTimeLocal": "2018-12-10T10:09:41-0500",
        "validTimeUtc": 1544454581,
        "visibility": 10,
```

```
            "windDirection": 110,
            "windDirectionCardinal": "ESE",
            "windGust": null,
            "windSpeed": 2,
            "wxPhraseLong": "Partly Cloudy",
            "wxPhraseMedium": "Partly Cloudy",
            "wxPhraseShort": "P Cloudy"
    }
]
```